

EXPERIENCES OF KINDERGARTEN TEACHERS IMPLEMENTING INSTRUCTIONAL PRACTICES FOR DIVERSE LEARNERS

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The purpose of this study was to determine what instructional practices that enhance outcomes for diverse learners do kindergarten teachers see as desirable and feasible to implement and which do they report implementing in their general education classroom. Ninety-five kindergarten teachers were asked about their perceptions and use of instructional practices. A subgroup of 18 teachers also participated in a follow-up interview. Teachers rated the desirability of all practices high indicating their awareness and the importance of each. The most desirable practices reported by teachers primarily focused on practices surrounding the social-emotional domain of students. Although teachers rated the ease of doing most of the practices relatively high, this rating was lower in all cases from the desirability rating.

The inclusion of students with disabilities into general education settings has been encouraged internationally as a positive means of enhancing student's overall development and functioning (DEC, 1996; Evans, 1998). In the United States, due to the mandates of special education legislation (e.g., IDEA), which have strongly advocated for students with disabilities to be included in the general education setting to the extent possible, the number of students with disabilities being placed into these classrooms and the amount of services being delivered within them has increased and is expected to continue to increase. It is clearly delineated in these federal mandates that the general education curriculum should be the educational foundation for all students – non-disabled as well as students with disabilities – and that curricular modifications and adaptations should also be provided for students with disabilities to be successful within the general education curriculum (Gunter, Denny, & Venn, 2000). It is therefore important to ensure that all teachers are prepared and able to meet the developmental and instructional needs of students with disabilities. With this increase of students with disabilities receiving instruction in general education programs, professionals in the field are becoming more concerned in understanding the nature and types of recommended practices that are being used to meet the needs of this special population (Odom, McLean, Johnson, & LaMontagne, 1995).

Although many teachers have had experience with a wide range of students including those with disabilities and are usually positive about educating students with disabilities in general education settings (Idol, 2006), most teachers indicate that they lack the knowledge, preparation, skills, and confidence needed to provide effective and appropriate education to meet the needs of all students (Frankel, 2004; McLeskey & Waldron, 2002; Sadler, 2005). The success of including students with disabilities in the general setting is dependent on teachers' willingness to be inclusive and their ability to make adaptations and accommodations for these students (Avramidis & Norwich, 2002; Hasazi, Johnston, Liggett, & Schattman, 1994; Kemp & Carter, 2005). However, teachers who have students with disabilities in their classes report having no more supports available to them than teachers who do not have students with disabilities, and in turn, they also report needing more resources and supports (Werts, 1996). The resources and supports teachers need to instruct students with disabilities depend on a variety of factors including the level or severity of the student's disability; the amount of additional responsibility and accountability issues that is required of them; sufficient time for planning and collaborating with others; and adequate administrative and personnel support (Avramidis & Norwich, 2002; Rose, 2001; Scruggs & Mastropieri, 1996; Smith & Dlugosh, 1999). Many teachers even prefer to have the included students accompanied by a special education teacher or instructional assistant (Idol, 2006). Furthermore, the actual use of recommended practices can be influenced by many factors including availability of resources, level of teacher preparation, family's wishes, and appropriateness of the practice for the student (Odom, McLean, Johnson, & LaMontagne, 1995).

Over the years there have been several studies focusing on the skills and knowledge teachers have for meeting the unique needs of student with disabilities (e.g., Vaughn, Schumm, Jallad, Slusher, & Saumell, 1996; Yasutake & Lerner, 1996; Ysseldyke, Thurlow, Wotruba, & Nania, 1990). Teachers even indicate that making adaptations to their instruction is feasible within the context of general education classroom (Molto, 2003). However, much of the research also indicates that many teachers are not prepared to manage the learning needs of some students with disabilities and lack skills for accommodating the needs of these students (e.g., Taylor, Richards, Goldstein, & Schilit, 1997). In addition, large class sizes and pressures to meet rigorous standards of accountability prevent many teachers from meeting all the needs of the students (Vaughn et al., 1996). Although we have a general understanding of teachers' perceptions and ability for accommodating students with disabilities in academic environments, less information is known about how kindergarten teachers' meet the needs of students with disabilities in their classes.

Understanding kindergarten teachers' views and experiences is vital because they are a key factor in the student's transition from a preschool program to a more formal general education class and curriculum (Odom et al., 2004). In an earlier study we surveyed a small group of kindergarten teachers about their perceptions of instructing students with disabilities. The teachers indicated that they wanted to assist students with disabilities to transition successfully from a preschool program to a general education kindergarten setting, but often were unable to implement sound practices (Author, 1999). These teachers reported that making adaptations for students with disabilities was valuable, but that there were many factors (e.g., class size, time for planning) that made it difficult for sound implementation of practices. The findings from this earlier study laid the foundation for this investigation, which takes a closer examination of instructional practices in today's kindergarten classes. More specifically, we sought to address the following questions: (a) What instructional practices that enhance outcomes for diverse learners do teachers see as desirable and feasible to implement? (b) What instructional practices do teachers report implementing in their classrooms? (c) What challenges do teachers perceive influence their instruction of students with disabilities? and (d) What factors do teachers believe facilitate their instruction of students with disabilities? The information provided by these kindergarten teachers can inform professionals about the types of instructional practices that are provided in inclusive kindergarten classrooms and may assist educators in determining what professional development opportunities teachers may benefit from to enhance the experiences of students with disabilities in kindergarten classes.

Method

Participants

General education kindergarten teachers in two urban school districts in the United States participated in this investigation. The teachers taught in schools that overall were representative of the ethnic composition of the districts (District 1: 51% Hispanic; 34% Black; District 2: 35% Black; 14% Hispanic). Using school district demographic data available to the public, a total of 50 schools were identified as having students with disabilities enrolled in kindergarten. A total of 113 kindergarten teachers at these schools were asked to participate in the study with 95 teachers returning the survey (84%). A subgroup of 18 kindergarten teachers participated in a follow-up interview. Teachers had experience instructing students in a variety of programs and grade levels beyond kindergarten. All teachers had a bachelor's degree and 35% also had a graduate degree in education. All the teachers were certified in either elementary, primary, and/or early childhood education. Only a small number of teachers were certified in special education (11%).

During the current school year, 73 teachers reported having at least one student formally identified as having a disability in their kindergarten class, however all teachers indicated that there was at least one student in their class that had special needs. Furthermore, all teachers reported having had instructed at least one student with a disability during the past three years. All the kindergarten classes in both districts were full-day with the average classroom composed of 26 students. Students with speech/language impairments, developmental delays, and/or learning disabilities were the most commonly included students with disabilities in these kindergarten classrooms. Students identified with other disabilities were included in less than 10% of the classes. The majority of the teachers indicated that students with disabilities in their classes received additional special education and related services either within or outside of the classroom for part of the day.

Measures

Survey. The teachers completed the Adaptations for Kindergarten Children with Disabilities survey, which is designed to examine the perceptions of kindergarten teachers about the desirability (how

much they would like to implement) and the feasibility (how practical it is to actually implement) of using instructional practices to enhance outcomes for students with disabilities (Author, 1999). Teachers were asked to rate each of the practices on both desirability and feasibility on a Likert-type scale (1 = low; 5 = high). The items for the survey were derived by implementing a two-step method consisting of an extensive literature review and focus group interviews with kindergarten teachers. The Cronbach coefficient alpha, a measure of internal consistency, was .93 for the desirability subscale and .94 for the feasibility subscale. Validity was determined through a literature review, focus group interviews, and experts in the fields of early childhood and special education.

The Adaptations for Kindergarten Children with Disabilities survey was also modified to include the addition of a frequency of use section which asked teachers to indicate on average how frequently (never, monthly, weekly, daily) they used the practices during the school year. This section of the survey was reduced to 19 items that focused solely on instructional practices teachers could implement during the current school year. Therefore items such as, observe student in the early childhood special education program, were not included. Teachers were encouraged to provide comments.

Interview. A follow-up interview was conducted with a randomly selected subgroup of teachers ($n=18$) who indicated they were available to be interviewed. The purpose of the interview was to acquire a more in-depth understanding as to what challenges teachers faced instructing students with disabilities in the general education classroom. The interview was developed based on the responses provided by the teachers on the survey and consisted of five open-ended questions focusing on needed resources, classroom practices, and professional development topics teachers felt would enhance their ability to make adaptations for students in their classrooms.

Procedure

The surveys were delivered to each kindergarten teacher in the identified schools. A follow-up survey was delivered within two weeks of the first to each teacher who had not returned it. Once all surveys were collected, about half the teachers indicated a willingness to participate in an interview. We then randomly selected a third of this pool ($n=18$) to participate in the follow-up interview. Interviews were conducted at the convenience of the teachers and lasted approximately 15 minutes. Interviews were audiotaped for accuracy and transcription purposes.

Data Analysis

The Wilcoxon Signed Ranks Two-Tailed Test was used to determine differences between the paired ratings of desirability and feasibility for each item on the survey. This non-parametric test for significance between items was considered most appropriate because the measure uses an ordinal scale (Kerlinger, 1999). The Wilcoxon Signed Ranks Test approximates a z test. To further determine the magnitude of differences, all analyses were conducted at the $p < .01$ significance level. Descriptive statistics were calculated to indicate teachers' frequency of use for each instructional practice.

Data from the follow-up interviews and open-ended survey questions were gathered and coded using qualitative methodology (Lincoln & Guba, 1989; Strauss & Corbin, 1998). As suggested by Miles and Huberman (1994), three flows of analysis were applied for summarizing the data. The first flow of analysis involved two researchers independently summarizing the written interview data. Key themes were identified and the researchers met to discuss their findings. The second flow of analysis included the development of data summaries on each theme. These data summaries were presented to the research team and findings were negotiated using the group mind process (Lincoln & Guba, 1989). Rules were revised as needed and all salient phrases and sentences were read to insure they were placed in the appropriate theme. The third flow of analysis involved drawing conclusions and verifying findings. Contradictory evidence was examined and firmly established conclusions reported. Findings were summarized to reflect the major themes that emerged in the analysis supported by representative quotations. All names have been changed to maintain teachers' confidentiality.

Results

Desirability and feasibility of practices

Teachers were asked to rate each practice on how desirable it was to use and how feasible it was to implement in their general education classrooms. Results indicated statistically significant differences between teachers' perceptions of the desirability (range 3.89 to 4.96) of using each practice and the feasibility (range 2.27 to 4.84) of implementation for all practices except for one (maintain a portfolio). Table 1 provides the medians, means, and standard deviations for desirability and feasibility of each

item. Median scores are indicative of the ordinal nature of the Likert-type scale used on the survey, while the means and standard deviations are provided as additional descriptive statistics. In general, teachers perceived all of the practices as being highly desirable to implement. However, teachers rated the feasibility of implementing the practices significantly lower than their desire to use them.

Table 1
Kindergarten Teachers' Ratings of Desirability and Feasibility of Practices

| Instructional Practice | Desirability | | | Feasibility | | |
|--|--------------|-------------|-----------|-------------|-------------|-----------|
| | <u>Mnd</u> | <u>M</u> | <u>SD</u> | <u>Mnd</u> | <u>M</u> | <u>SD</u> |
| Facilitating the Transition to Kindergarten | | | | | | |
| Examine ECSE IEP | 5* | 4.48 | .76 | 4 | 3.97 | .95 |
| Discuss kindergarten with preschool teacher | 5* | 4.45 | .91 | 3 | 3.03 | 1.19 |
| Observe student in preschool setting | 5* | 4.12 | 1.06 | 3 | 2.85 | 1.28 |
| Develop ITP | 5* | 4.10 | 1.22 | 3 | 2.87 | 1.43 |
| Teacher Practices and Management | | | | | | |
| Adjust physical arrangement of room | 5* | 4.70 | .68 | 4 | 3.65 | 1.28 |
| One-on-one instruction | 5* | 4.65 | .67 | 2 | 2.27 | 1.14 |
| Establish appropriate routine | 5* | 4.57 | .91 | 4 | 3.81 | 1.34 |
| Adapt classroom materials | 5* | 4.53 | .66 | 3 | 3.05 | 1.18 |
| Implement developmentally appropriate curricula | 5* | 4.41 | .60 | 3 | 3.39 | 1.17 |
| Adjust teaching style | 5* | 4.40 | .95 | 3 | 3.32 | 1.22 |
| Social Skills Development | | | | | | |
| Encourage all to respect and include student | 5* | 4.96 | .21 | 5 | 4.84 | .75 |
| Plan activities so student can succeed | 5* | 4.79 | .54 | 4 | 3.95 | 1.19 |
| Teach student positive social behaviors | 5* | 4.75 | .51 | 5 | 4.32 | .87 |
| Pair and group student with non-disabled peers | 5* | 4.75 | .51 | 4 | 4.03 | 1.19 |
| Help student deal with appropriate feelings | 5* | 4.65 | .69 | 4 | 3.58 | 1.18 |
| Implement behavior plan | 5* | 4.56 | .70 | 4 | 3.58 | 1.24 |
| Curricula and Assessment | | | | | | |
| Use technology as a learning tool | 5* | 4.75 | .47 | 4 | 3.65 | 1.04 |
| Maintain portfolio | 5 | 4.60 | .78 | 5 | 4.37 | 1.08 |
| Monitor student's understanding | 5* | 4.58 | .57 | 4 | 3.53 | 1.27 |
| Use school preparedness assessments | 5* | 4.21 | 1.08 | 4 | 3.78 | 1.09 |
| Revise curricula | 4* | 4.05 | 1.14 | 2 | 2.57 | 1.30 |
| Working with Family and Support Staff | | | | | | |
| Educate parents about developmentally appropriate education | 5* | 4.65 | .54 | 3 | 3.52 | 1.07 |
| Meet parents and student prior to kindergarten | 5* | 4.66 | .68 | 3 | 3.46 | 1.10 |
| Communicate with special education teacher and other professionals | 5* | 4.51 | .72 | 4 | 3.58 | 1.26 |
| Learn about support services | 5* | 4.46 | .77 | 3 | 3.41 | 1.27 |
| Learn about special equipment use | 5* | 4.40 | .89 | 3 | 2.82 | 1.31 |
| Learn about student's cultural perspectives and family goals | 5* | 4.30 | .89 | 3 | 3.31 | 1.23 |
| Establish routine of communication with parents | 4* | 3.89 | 1.26 | 3 | 2.89 | 1.48 |
| Grand Mean | | 4.69 | | | 3.91 | |

Note: IEP = Individualized Education Program; ITP = Individualized Transition Plan.

*Results of the Wilcoxon Matched-Pairs Signed-Ranks Test significant at the .01 level.

The majority of kindergarten teachers expressed their desire for using these instructional practices with students with disabilities in their classrooms. Ms. Puig made this comment, *This year I have one child who attends speech for language processing skills. The speech teachers and I talk about the procedures to follow to help the child excel in the class. I also keep the lines of communication open by talking frequently with the mother of the child. We talk about behavior and progress in work, and what to work on at school and home!* In addition, kindergarten teachers stated that implementing the instructional practices were relatively feasible for them. As Ms. Tables stated, *Although kindergarten has become more academically inclined and less developmental, the teacher has the ability to restructure curriculum and provide developmentally appropriate activities to ensure success based on children's individual ability.*

Reported use of practices

Teachers were also asked to indicate how often they used the practices during the past school year. Overall, teachers reported using most of the practices on a daily or weekly basis (See Table 2). The most frequently implemented practices, with over 70% of teachers reported using them on a daily basis included: a) adjusting the physical arrangement of their rooms to ensure accessibility; b) establishing an appropriate routine for the student; c) teaching students with disabilities how to use positive social behaviors; d) implementing a behavior change program; e) encouraging all students to respect and include the student with disability; and f) planning activities so the student with disability can succeed. The practice that had the largest percentage of teachers (29%) never implementing was revising the curricula to build on student's prior knowledge. About 43% of kindergarten teachers indicated communicating with the special education teacher or related personnel on a monthly basis, while 13% of teachers who had an identified student with disabilities in their classroom had never had any type direct communication with the special education teacher.

Table 2
Percentage of Kindergarten Teachers Reported Using the Practice

| Instructional Practice | Daily | Weekly | Monthly | Never |
|---|-------|--------|---------|-------|
| Teacher Practices and Management | | | | |
| Establish appropriate routine | 80 | 20 | - | - |
| Adjust physical arrangement of room | 80 | 3 | 10 | 7 |
| Implement developmentally appropriate curricula | 64 | 22 | 7 | 7 |
| Adapt classroom materials | 48 | 31 | 14 | 7 |
| Adjust teaching style to individual needs | 47 | 36 | 17 | - |
| One-on-one instruction | 40 | 23 | 30 | 7 |
| Social Skills Development | | | | |
| Implement behavior plan | 80 | 17 | 3 | - |
| Teach student positive social behaviors | 80 | 10 | 10 | - |
| Encourage all students to respect and include student | 76 | 21 | 3 | - |
| Plan activities so student can succeed | 73 | 17 | 10 | - |
| Pair and group student with non-disabled peers | 70 | 27 | - | 3 |
| Help student deal with appropriate feelings | 43 | 34 | 10 | 13 |
| Curricula and Assessment | | | | |
| Maintain portfolio | 68 | 18 | 14 | - |
| Monitor student's understanding | 67 | 17 | 13 | 3 |
| Use technology as a learning tool | 40 | 47 | 3 | 10 |
| Revise curricula to build on student's prior knowledge | 32 | 25 | 14 | 29 |
| Working with Family and Support Staff | | | | |
| Establish routine of communication with parents | 62 | 14 | 24 | - |
| Educate parents about developmentally appropriate education | 36 | 21 | 36 | 7 |
| Communicate with special education professionals | 27 | 17 | 43 | 13 |

Challenges to meeting the needs

During the interviews, teachers were asked questions regarding their experiences instructing students with disabilities in their general education kindergarten classrooms. Teachers identified several challenges they had encountered while instructing students with disabilities. The most common barrier stated by teachers was their *lack of preparation* on how to instruct students with disabilities. Over half (57%) of the teachers indicated that they did not feel prepared to instruct students with disabilities in their kindergarten classrooms and 40% indicated they did not feel confident in the types of adaptations they made for their students. A typical response from a teacher, Ms. Gomez, was, *I do not feel prepared because I have never completed any coursework in special education*. Ms. Walters expressed her need for more preparation by saying, *I've taken a couple of courses and attended some workshops, but I do not feel trained to teach children with learning problems or severe behavior problems*.

Another common challenge that impacted teachers' ability to include students with disabilities was the *size of the general education classroom*. Ms. Newman expressed what many others felt, *Definitely classroom size is a huge barrier. You want to help the child as much as you can, but then you have twenty other children that need your attention too. You do not want to let this child fall behind, but then the other kids are waiting on you too*. Another teacher, Ms. Gregory, stated, *There's a great deal of curriculum to be covered, and a lot of children to supervise. There's just too many children in the*

classroom. You'd need a smaller class size. Then you could give more individual attention. Ms. Lopez expressed the same concern, *If the classes would have less children, addressing the needs of those children would be much easier.*

Insufficient time to instruct and adapt materials was another challenge that many teachers spoke about. Ms. Dizon's response is common of many, *Everybody needs time to adapt materials. Time is definitely a factor because there is such a wide range of abilities in the classroom...our schedules are already strict time-wise.* Another teacher, Ms. Walters, commented, *In the classroom there is a time factor, but it would be great if we know a child is going to be in our classroom, we could go interact beforehand. However, there is a limitation of time, coverage, [and] personnel.* Teachers were also concerned about the *lack of appropriate materials and support* available to them to meet the needs of students with disabilities. A typical response from several teachers is captured by Ms. Moore's statement, *I would certainly try to make effective adaptations, but to make these adaptations I need to be given support by being provided with necessary materials and equipment, extra help, and a room with adequate space.*

Facilitating factors

Teachers interviewed were asked to develop a *wish list* of resources and supports that would assist them in better meeting the needs of students with disabilities in their classrooms. As expected, teachers identified a variety of resources that they felt would assist them in meeting not only the needs of the students with disabilities, but also the needs of all students in their classes. Teachers were also asked to rank their top three resources and supports. The items most frequently ranked by teachers in the top three included (1) having additional classroom materials and equipment (e.g., manipulatives, computers, audio/visual equipment), (2) more staff and aide support, and (3) smaller class sizes.

Teachers were also asked to identify what factors needed to be in place that would facilitate their instruction. Teachers indicated that *additional professional development* was essential for them to understand how to make specific adaptations for students with disabilities within the general education classroom. As Ms. Hernandez stated, *There are many aspects of a classroom: physical, schedules, various types of instruction and student population. I feel somewhat confident that proper adaptation could be made. Information about the child and proper training would be essential.* Another teacher, Ms. Lopez, commented, *Workshops or classes for the regular classroom teachers that would teach us how to treat these children with disabilities. Because we don't really have the training.* Teachers were also asked to provide specific topics for professional development workshops that they felt would be beneficial to them. The topics most frequently mentioned by teachers included strategies and adaptations for students with disabilities, characteristics of students with disabilities, and the use and application of technology.

Another factor that teachers explained would facilitate meeting the needs of students with disabilities was to *collaborate with the special education teacher.* Teachers felt this was critical and yet challenging if they were to make the appropriate adaptations for the students. As Ms. Thomas remarked, *Special children need special education, special teachers, and although I think they need to be mainstreamed in some way, they need special attention.* Another teacher, Ms. Bears, expressed, *Sometimes the special education teacher says do this, if it helps or do that...so I would try something along those lines.* The challenge in collaborating was finding the time to meet as Ms. Hernandez expresses her dilemma, but willingness, *I have no break, and of course our lunch is not at the same time, and before school was out of the question to be very honest with you. She's out with the buses, getting the kids, and I need to be down here. I am on the exact opposite end of the building...So we would have to end up meeting in the hall, somewhere, honest to goodness...Because to make it a formal thing is very hard for her and very hard for me too.*

Although teachers had identified several challenges to including students with disabilities in their classrooms, many of the teachers had had successful experiences and were implementing many of the practices. Teachers who felt they were successful with students with disabilities attributed their success to having *additional personnel in the classroom*, in particular the special education teacher. *I've been very blessed with the children that are mainstreamed. They are sending in someone to stay with those children and they are working with them one-on-one,* said Ms. Cousins. In addition to school personnel, teachers have found success with classroom volunteers, as Ms. Moore did, *I've found that when we have volunteers come in ... and help with the children. I found that even though this student had a lot of problems, learning or comprehending anything, when they had that one-on-one, I did see some difference.*

Teachers also expressed the need to regularly monitor the progress that students with disabilities were making in their classrooms. These kindergarten teachers used a variety of techniques to gauge student's understanding and to ensure that they were successful in kindergarten. Although the teachers were knowledgeable about standardized assessments, they felt that information from those assessments would not make a difference in how they prepared to instruct the students. Instead, the teachers that we spoke with preferred to use informal assessments to monitor progress. The technique most widely used by teachers to monitor the student's progress was maintaining a portfolio.

Discussion

Kindergarten teachers are a critical educational link for many families and students with disabilities as they move from preschool programs to more formal educational settings. It is important for educators to understand general education kindergarten teachers' attitudes, skills, and knowledge regarding meeting the needs of students with disabilities because they have much influence on the success the student will have in their classrooms. This investigation focused on determining what instructional practices kindergarten teachers find desirable, feasible, and actually report using. The majority of kindergarten teachers expressed the desirability for using instructional practices for diverse learners. This finding was encouraging because teachers are more likely to implement practices successfully if they believe in them (Pollaway, Bursuck, Jayanthi, Epstein, & Nelson, 1996). In addition, teachers stated that overall, implementing these practices was feasible for them, although the level of feasibility was lower as compared to the level of desirability. The findings from this investigation are supported by our earlier study with general education teachers (Author, 1999).

Teachers' views on ease of implementation of practices were further corroborated by their reported high level of actual use for the majority of practices. However, communication with the special education teacher about the students with disabilities in their classrooms did not occur regularly. Part of the explanation for this lack of communication could be that many of students with disabilities in these kindergarten classes received special education services outside the kindergarten classroom and even when the special education teacher came into the classroom, the teachers did not have common planning times or coordinated schedules to discuss the student, his/her progress, and/or appropriate implementation of instructional practices. It is critical that schools and administrators encourage and assist teachers in developing this collaboration, because we know that collaborative relationships between general education and special education teachers is a predictor of academic success for students with disabilities (Silva & Morgado, 2004). For collaboration to flourish between general and special education teachers certain key factors need to be in place including common planning time, administrative support, and defined roles and responsibilities (Avramidis & Norwich, 2002; Idol, 2006; Lamar-Dukes & Dukes, 2005; Vaughn, Schumm, & Arguelles, 1997); however few factors for successful collaboration or communication were in place at these schools.

When we asked kindergarten teachers why it was difficult to implement certain practices, teachers consistently mentioned several challenges including lack of preparation in how to instruct students with disabilities, class size, and insufficient time to instruct and adapt materials. These factors, such as unfavorable class size and poor teacher-student ratios, have been shown to be barriers to inclusion (Buysee, Wesley, & Keyes, 1998). Therefore, there are several factors that need to be put in place in order for students with disabilities to be successfully included in general education classrooms including administrative support, in-class services, resources, planning time, and knowledge of universal design methods (Scruggs & Mastropieri, 1996). General education teachers who are instructing students with disabilities in their class need additional support in terms of time, preparation, resources, and smaller class sizes (Scruggs & Mastropieri, 1996). Teachers also need opportunities to collaborate, because it may compensate for personal insecurities (Soodak, Podell, & Lehman, 1998).

Effective collaboration is the foundation of good inclusive programs if teachers are to successfully manage their instruction to meet the needs of all their students (McLeskey & Waldron 2002; Pettig, 2000; Walther-Thomas, Korinek, McLaughlin, & Williams, 2000). To effectively meet student's needs in integrated settings educators need to spend a considerable amount of time and effort in rethinking how general and special education teachers can work together to meet the needs of students. As there continues to be an increase in the number of students with disabilities being educated in general education settings, there is a need for an increase in collaboration and true communication between general and special education teachers (Pugach & Johnson, 2002). Therefore, it is imperative that special and general education teachers interact and coordinate with each other, and be flexible in their delivery of instruction to students with disabilities. One way to enhance collaboration between

professionals is to offer joint professional development opportunities that allow for a common language to be shared by all or begin to design and offer personnel preparation programs that dually prepare general and special educators together. Teachers participating in professional development tend to increase awareness of themselves, colleagues, and of the individual needs of all their students which in turn has shown to increase the collaborative relationships (Coombs-Richardson & Mead, 2001). Facilitating communication, enhancing respect, and fostering trust among teachers are critical factors needed for the success of students with disabilities in general education classrooms at all levels and can emerge from these professional development opportunities (Schumm, Hughes, & Arguelles, 2000; Vaughn & Schumm, 1995). In addition, it is crucial that administrators provide the support teachers need by building in common planning time, promoting flexibility and allowing the teachers opportunity to develop their skills and confidence (Arguelles, Hughes, & Schumm, 2000).

As was expected, kindergarten teachers indicated that providing one-on-one and individualized instructions are challenging due to large class sizes and student's range of abilities. Considering the reality of today's classrooms, it is difficult to imagine how they might provide this individualized instruction required by many students with disabilities. However, teachers can implement a combination of grouping formats to address the unique needs of all students and address the heterogeneity of general education classrooms (Maheady, 1997). Some of these grouping formats that general education teachers can utilize include small group instruction and pairing and peer tutoring (Vaughn, Hughes, Moody, & Elbaum, 2001). Small group instruction offers a context for teachers to provide students opportunities to express what they know receive feedback from other students and the teacher, and practice newly acquired skills. Effective use of small groups can be enhanced through the use of flexible grouping and student lead small groups (Radencich & McKay, 1995). Furthermore, students with disabilities have reported that they prefer to work in pairs and consider other students to be their favorite teachers (Klingner, Vaughn, Schumm, Cohen, & Forgan, 1998; Vaughn, Schumm, Klingner, & Saumell, 1995).

As classrooms become more diverse, teachers also need to become more diverse in terms of the instructional practices they use in their classrooms. However, many general education teachers have not been equipped with the necessary skills and techniques for successful inclusion and are still feeling uncomfortable and unprepared to meet the needs of students with disabilities due to their limited experience and lack of preparation. Ongoing professional development is one factor associated with the success of inclusive programs (Ayers & Meyer, 1992; O'Neill & Williams, 1993). Teachers can meet the needs of all students by carefully planning and implementing elements of universal design by designing materials and methods that make learning goals achievable by a wide range of learners. Teachers must come to understand the student diversity in their classrooms and develop teaching techniques that include all students (Orkwis, 2003). As teachers become more familiar with inclusive classrooms, they often discover that many of the same strategies that work with students who are struggling in reading and math also work for certain students with disabilities and vice versa (Idol, 2006). Professional development then needs to provide teachers with models of differentiated instruction and curriculum which can provide them with knowledge and skills to implement a growing range of instructional strategies (Molto, 2003).

Although these findings appear to support the idea that kindergarten teachers are providing appropriate instructional practices for students with disabilities in their classrooms and that these practices overall are desirable and feasible, the findings should be interpreted in light of some limitations. The use of self-report data limits the findings because of what people are willing to disclose under the conditions of data collection. It should also be noted that while self-report data provide a view of teachers' perceptions of events and conditions, these perceptions may not be an accurate representation of events and conditions as they actually exist. Any question, no matter how simple it may appear, may embarrass the person and encourage him or her to provide a socially desirable response (Fowler, 2001). However, self-reports that are elicited with care and interpreted with an understanding of the circumstances under which they are obtained are a valuable source of information (Ericsson & Simon, 1993).

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